

# Abstract

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Title of thesis: Radiolabeling of PCTA-*Lys*3-Bombesine and determination of stability of the radiolabeled product

The dissertation deal with study of radiolabeling of new receptor-specific peptide - bombesin, which was modified with chelator PCTA, PCTA-*Lys*3-bombesin, with radionuclide  $^{177}\text{Lu}$ , and determination of labelled product quality and its stability.

For quality control we used method high-efficiency liquid chromatography (HPLC) and thin-layer chromatography (ITLC) on ITLC-SG. HPLC offer clear proof about pollution and possible dissociative outputs.

Comparison of both methods for determination of purity of labelled peptide showed that HPLC is more accurate than TLC method.